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## Average Levels of Direct Support for Farmers in Poland at the Regional Level

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**Abstract:**

**Purpose:** The primary objective of the study was to identify differences between regions (voivodeships) in the average level of support granted under the direct payments scheme.

**Design/methodology/Approach:** The interregional differentiation in the level of support is, to a large extent, a result of decisions taken at the national level regarding the shape of agricultural policy. Instruments and mechanisms that weaken the strength of the link between the area of the agricultural holding and the amount of support received have led to a more egalitarian distribution of funds among beneficiaries.

**Findings:** Interregional dispersion was found to be relatively low where the level of support was measured by the average amount of payments per unit of agricultural area. However, the same indicator was high if the adopted measure was the average amount of support per beneficiary. Regions with the lowest average level of support per hectare of agricultural area include voivodeships in north-eastern, western, and south-western Poland and the Subcarpathia Voivodeship.

**Practical Implications:** The region with the highest value of this indicator is the Podlachie Voivodeship. In turn, regions with the lowest average level of support per beneficiary are voivodeships of south-eastern Poland. The highest value of the indicator is observed in the Westpomeranian Voivodeship.

**Keywords:** Common Agricultural Policy, direct payments, average level of support.

**JEL codes:** Q18.

**Paper type:** Research paper.

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## **1. Introduction**

The average level of support granted to farmers under the direct payments scheme (expressed in monetary units per hectare or per agricultural holding) is quoted both in discussions on the distribution of funds for the instruments within the 1st pillar of the Common Agricultural Policy between EU Member States (Hamulczuk and Rembisz, 2009; Krzyżanowski, 2015; Sadłowski, 2017b), and in discussions on the distribution of support between beneficiaries in the respective Member States and regions (Beluhova-Uzunova, Atanasov, and Hristov, 2017; Sadłowski, 2017a; 2018; Severini and Tantari, 2015; Sinabell, Schmid, and Hofreither, 2009).

In this context, in addition to the aspect of fairness, the issue of the rational use of funds is raised, including the minimisation of the impact of the direct support system on business decisions taken by farmers, which, to maintain the sector's effectiveness, should be based to the highest extent possible on market signals on the required production volume and structure.

Some authors claim that direct payments should be discontinued, which, according to Kołodko (2007), would be justified not only from the economic but also moral point of view due to global fairness arguments. Matthews (2018), in turn, advocates for a reform of direct payment financing rules, providing arguments for establishing a state budget co-financing regime. Each Common Agricultural Policy reform has introduced certain changes in the allocation of direct support. As noted by Erjavec *et al.* (2020), the policy makers devote much attention to the impact of any proposed reform on the distribution of the payments between farms with various production specialties and between individual regions, because any changes in the scope and distribution of Common Agricultural Policy direct payments could have significant impacts on incomes of different types of farms and agricultural land prices, causing structural effects that are difficult to predict.

A fair distribution of assistance between beneficiaries can be understood as the lack of disproportionate differences in amounts of support granted. With such approach, fairness is confronted with effectiveness, under which support is given for specific activities, i.e., a motivation system that will maximise the adopted goal function. In such a case the shape of the direct support scheme can be perceived as a compromise between satisfactory equality in the amount of support granted (which can be regarded as a social objective) and acceptable efficiency and effectiveness of the system in the implementation of the adopted economic and environmental goals.

Forstner *et al.* (2012) identify two directions of interpretation for the distribution of direct payments: interpretation in categories related to needs (providing income security to specific farmers) and interpretation in categories referring to results (in terms of the provision of public goods and minimising the negative impact of agricultural activity on climate and environment). In opinion Garnett and Godfray

(2012) there are major opportunities for improving environmental and productivity outputs simultaneously in agricultural systems with current low levels of production, however, trade-offs between yields and environmental outputs are more prevalent in high external input production systems. The triad of social, economic, and environmental goals is characteristic of the concept of sustainable development (Matuszczak, 2009; Misztal, 2018). According to Kryszak (2016), the shaping of order in agriculture in line with this concept is supported by a relatively even distribution of income in this sector.

In opinion of Czudec, Kata and Miś (2017), the Common Agricultural Policy has widened the agricultural gap between Polish regions which had been the most developed agriculturally before Poland joined the European Union (Greater Poland, Masovia, Podlachie) and those in which this sector was the most underdeveloped (Subcarpathia, Lesser Poland and Silesia). Jędrzejczak and Pekasiewicz (2018) state that the lowest agricultural income is generated in the southern region, with the highest percentage of agricultural holdings generating income below the poverty line and a very low percentage of agricultural holdings generating high income. In contrast, the highest income is achieved by farmers in the north-western and central regions. The central region has the lowest at-risk-of-poverty rate, while the highest percentage of high-income agricultural holdings is in the northern region.

The article's objective is to identify differences between regions (voivodeships) in terms of the average level of support granted under the direct payments scheme, and to indicate the reasons for these disparities.

## **2. Material and Methods**

The source material were data of the Polish agency implementing direct payments (i.e., the Agency for Restructuring and Modernisation of Agriculture) and Ministry of Agriculture and Rural Development for 2018. In order to measure the average level of support granted to farmers in a given region, the following measures were used:

- 1) average amount of direct payments per agricultural area unit;
- 2) average amount of direct payments per beneficiary.

The spatial diversity of the values of these indicators was visualised using cartograms. Statistical description methods were used for the analysis of the diversity of a given attribute (i.e., the level of direct payments) in a population (of voivodeships). The calculated values included positional measures of dispersion (range) and two traditional measures: absolute (standard deviation) and relative (coefficient of variation). In reference to voivodeships with extreme values of average payments amounts per agricultural area unit, the pie/bar chart was used to present the structure of absorbed funds according to support instruments and compared with the fund's distribution structure between the respective instruments at the national level.

### **3. Direction of Direct Support and Payment Rates in Poland**

The rules of granting direct payments in Poland were specified in the act (Ustawa..., 2015), which provides that the payments are granted for:

- 1) the area of land used for agricultural purposes – the single area payment, with the amount of the payment granted to a farmer for a specific year limited to EUR 150,000;
- 2) the area of land used for agricultural purposes within a holding following specific agricultural practices – payment for agricultural practices beneficial for the environment and the climate;
- 3) the area of land used for agricultural purposes owned by so-called young farmers, with an area up to 50 ha – the payment for young farmers;
- 4) the number of hectares used for agricultural purposes within an agricultural holding within the range (3, 30] – the redistributive payment;
- 5) the area of a given type of crop – coupled payments for the crop area of: forage plants, grain legumes, hops, sugar beets, starch potatoes, tomatoes, strawberries, flax and fibrous hemp (in the case of payment for the crop area of forage plants, the area limit up to 75 ha is used, in the case of payment for the crop area of grain legumes, rate degression is applied – it is twice as high as the area up to 75 ha, and crop area payment for hops is granted only for crops located in specific regions);
- 6) the number of livestock of specified species – coupled payments for the following livestock: young cattle, cows, sheep and goats) with specific minimum herd numbers as a condition for receiving support, and in the case of payment for young cattle and payment for cows' quantitative limits are applied, i.e., the maximum number of livestock to be covered by support in a holding);
- 7) production volume of specific agricultural product in the reference period (decoupled tobacco payment).

Deductions are applied resulting from the so-called financial discipline mechanism. These cover holdings in which the number of payments financed from the EU budget (i.e., all payments except for decoupled tobacco payment) exceeds EUR 2000. Table 1 lists the rates of individual payments applicable in 2018. It shows that in terms of area payments, tomato growers had the highest rates, while cow keepers received the highest rates of livestock payments. All area payments, except for payments for area under cultivation, might “overlap” (accumulate). In somewhat simplified terms<sup>2</sup>, this

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<sup>2</sup>*This simplification can be explained by the fact that redistributive payments are granted for a certain abstract area, rather than for specific agricultural plots, or portions thereof. Apart from that, for exceeded area limits, no specification is made as to which plots, or portions thereof, have been granted young farmer payments (the limit is 50 ha), or payments for areas cultivated with fodder plants (the limit is 75 ha). Similarly, no indication is made as to which*

means that a given agricultural area may receive, at the same time, a single area payment, a payment for agricultural practices beneficial for the climate and the environment, a payment for young farmers, a redistributive payment and one of the payments for area under cultivation.

**Table 1.** Direct payment rates in 2018

<b>Support instrument</b>	<b>Payment rate</b>
single area payment	EUR 107.35/ha
payment for agricultural practices beneficial for the climate and the environment	EUR 72.05/ha
redistributive payment	EUR 41.62/ha
payment for young farmers	EUR 41.06/ha
grain legumes area payment	EUR 167.52/ha (up to the first 75 ha of crops on the holding) EUR 83.76/ha (up to an area exceeding 75 ha)
fodder plants area payment	EUR 102.56/ha
starch potatoes area payment	EUR 249.19/ha
sugar beets area payment	EUR 349.66/ha
hops area payment	EUR 497.94/ha
tomatoes area payment	EUR 776.35/ha
strawberries area payment	EUR 246.49/ha
flax area payment	EUR 113.65/ha
hemp area payment	EUR 55.00/ha
young cattle payment	EUR 68.51/piece
cows payment	EUR 87.37/piece
sheep payment	EUR 23.70/piece
goats payment	EUR 12.81/piece
tobacco payment	EUR 0.82/kg (Virginia) EUR 0.58/kg (other tobacco)

*Source:* Ministry of Agriculture and Rural Development

The form of support instruments and payments rates used under individual instruments may petrify existing structures or initiate or stimulate specific changes. Changes initiated or stimulated by the direct support system can be interpreted as adjustment processes of holdings to new non-market circumstances of agricultural activity (adaptation to the applicable agricultural policy). These adjustments to some extent have an impact on the final amount of funds absorbed by the respective farmers and regions.

#### 4. Results

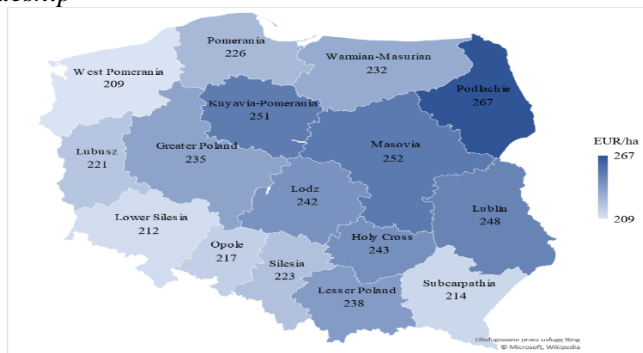
Direct payments amount in 2018 in the respective regions per 1 ha of agricultural area and per beneficiary were presented in Figures 1 and 2, respectively. The difference

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*cultivated areas are eligible for the higher rate (and which for the lower rate) where the area cultivated with grain legumes in an agricultural holding exceeds 75 ha.*

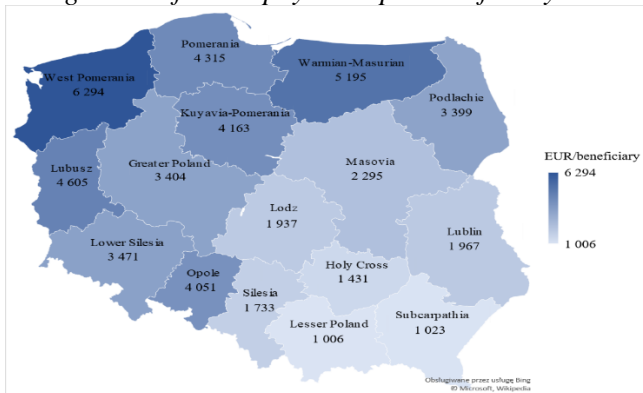
between the highest and lowest value of the first indicator is EUR 58 ha<sup>-1</sup>. Standard deviation equals EUR 16.6 ha<sup>-1</sup>, accounting for 7% of the average support amount per hectare of agricultural area in Poland. This demonstrates a relatively low diversity (between voivodeships) of the level of support measures with the average amount of support per agricultural area unit. Based on the cartogram depicting the geographical differentiation of the average amount of support per 1 ha at the voivodeship level (Figure 1), it can be further stated that the indicator is the highest in voivodeships of north-eastern and central Poland and in the Lesser Poland Voivodeship.

**Figure 1.** The average level of direct payments per hectare of agricultural area in 2018 by voivodeship



**Source:** Own study based on data from the Agency for Restructuring and Modernization of Agriculture.

**Figure 2.** The average level of direct payments per beneficiary in 2018 by voivodeship



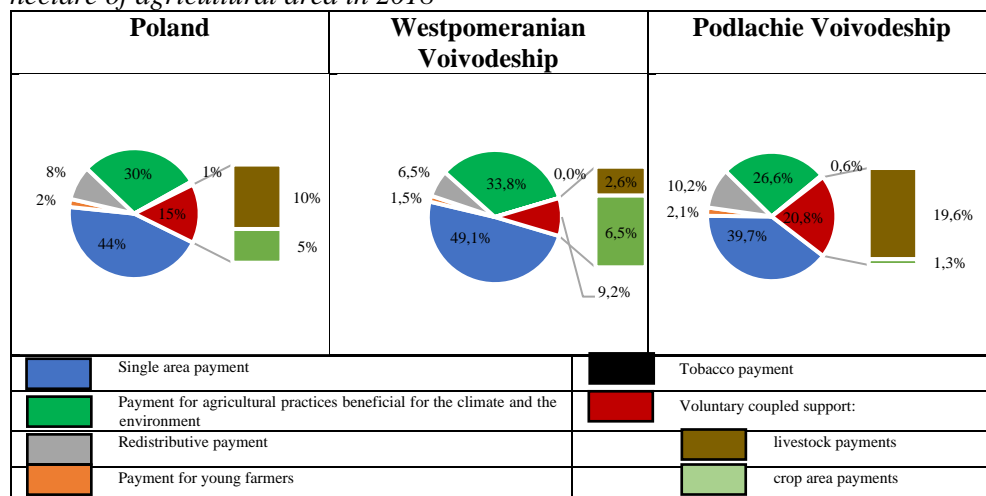
**Source:** Own study based on data from the Agency for Restructuring and Modernization of Agriculture.

However, in the case of the second indicator, the range is EUR 5,288 per beneficiary. Standard deviation is EUR 3,283 per beneficiary, which accounts for nearly 130% of the average amount of support granted to farmers calculated for the whole country. This means that the interregional dispersion of the level of support measures with the average payments level per 1 beneficiary is high. The cartogram presented in Figure

2 also reflects a certain regularity as to the value of the indicator in spatial terms, namely, the average payments amount in voivodeships per farmer grows when moving farther away from the south-eastern to the north-western part of Poland. With the specific rules of granting direct payments, the diversity of the average level of support between voivodeships is primarily a consequence of the heterogeneous area structure of holdings in the respective regions and the regional production specialisation of holdings. Conversely, with a specified area structure of holdings and with a given distribution of agricultural production, the interregional diversity of the average level of support is a consequence of specific rules of granting payments.

The structure of absorbed funds differs significantly, especially in regions with extreme values of the average amount of payments per hectare of agricultural area. The above is presented in Figure 3, which shows that in the Westpomeranian Voivodeship, as compared to the Podlachie Voivodeship, the proportion of the most popular payments, provided in general for area being part of an agricultural holding, is considerably higher – the share of the single area payment is higher by 9.4 percentage points, and payment for agricultural practices beneficial for the climate and the environment – by 7.2 percentage points. The proportions of these payments in the amount of funds absorbed by farmers from the Westpomeranian Voivodeship exceed the national percentage limits for these instruments. In the Podlachie Voivodeship there is a high proportion of redistributive payment, especially livestock payments which had the greatest impact on the average level of support per hectare of agricultural area.

**Figure 3.** The funds distribution structure between specific instruments applied within the direct payments scheme in Poland and the structure of support absorbed by farmers from voivodeships with the lowest and the highest average payments level per hectare of agricultural area in 2018



**Source:** Own study based on data from the Agency for Restructuring and Modernization of Agriculture.

## **5. Conclusions**

Area payments are of major significance in the direct support scheme. However, the number of payments granted to farmers is not directly proportional to the area of their holdings. In consequence, there are certain disparities in the average level of support per hectare of agricultural area, both at the holding and regional level. The disparities in the average level of support per agricultural area unit in Poland are primarily the result of:

- 1) the application of area payments which are not related to the area of the whole agricultural holding but with the number of hectares of area comprising the holding within the specific “privileged” range (redistributive payment) or the crop area of specific plants;
- 2) the application of area limits to some area payments (payment for young farmers, crop area payment for forage plants) and rate gradation (crop area payment for grain legumes);
- 3) the application of payments related to the number of livestock kept;
- 4) the application of payments for historical production volumes (decoupled tobacco payment);
- 5) incorporating payment reduction mechanisms in the direct support scheme.

When considering the average amount of support per agricultural area unit as the measure of the level of support, the interregional dispersion of the level of support granted under direct payments in Poland is relatively low. In turn, when taking the average amount of support per 1 beneficiary as the level of support measure, the dispersion is very high.

Regions with the lowest average level of support per hectare of agricultural area include voivodeships in north-eastern, western, and south-western Poland and the Subcarpathia Voivodeship. The region with the highest value of this indicator is the Podlachie Voivodeship. Regions with the lowest average level of support per beneficiary are voivodeships of south-eastern Poland (Lesser Poland, Subcarpathia and Holy Cross Voivodeships). In turn, the highest value of the indicator is observed in the Westpomeranian Voivodeship. Therefore, the Westpomeranian Voivodeship ranks first in terms of the average amount of support per beneficiary, at the same time ranking last in terms of the average amount of support per hectare of agricultural area.

The interregional differentiation in the level of support is, to a large extent, a result of decisions taken at the national level regarding the shape of agricultural policy. The scope of the decision-making power of the Member States of the European Union, as defined in EU regulations (Regulation..., 2013), regarding the direction of aid distributed in the form of direct payments is relatively large. Instruments and mechanisms that weaken the strength of the link between the area of the agricultural holding and the amount of support received have led to a more egalitarian distribution of funds among beneficiaries.



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